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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,507	03/26/2004	William E. Datig	103-005USA000	8926

7590 06/21/2006
Thomas J. Perkowski, Esq., PC
Soundview Plaza
1266 East Main Street
Stamford, CT 06902

EXAMINER

COUGHLAN, PETER D

ART UNIT	PAPER NUMBER
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2129

DATE MAILED: 06/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/811,507	Applicant(s) DATIG, WILLIAM E.	
	Examiner Peter Coughlan	Art Unit 2129	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2004.
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
 4a) Of the above claim(s) 1-21, 23-25 and 28-49 is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 22, 26, 27 and 50 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☒ The drawing(s) filed on 3/26/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Detailed Action

1. Claims 22, 26, 27, 50 are pending in this application.

Specification Rejections

2. The specification is rejected due to the following. Claim 22 uses the term "KP's flexibly programmed digital byte". Pages are written on what the KP and it's programmable digital byte can do but there is no description on how it works or the semantic drawing of the design.

The specification is rejected due to the following. Claim 26 uses the term "developer and the KP to create and manipulate". This is fine if the 'developer' and the 'kp' have the same design changes in mind. However, if the 'developer' and the 'kp' have different design requirements, what algorithm is in place to resolve the issue? Claim 26 only assumes that the 'developer' and 'kp' will always agree.

The specification is rejected due to the following. Claim 27 uses the phrase "microprocessor and software instruction syntax". This is in contradiction to claim 22 where values are placed directly into the CPU registers. Whereas in claim 27 states a software based neural network.

The specification is rejected due to the following. Claim 50 uses the term “quantum momentary” (NOTE—misspelled in claim 50.). This is based in the theory of quantum mechanics and the viewpoint there exists no continuum of an event just a series of moments or snapshots of an event. There exists no proof that the human brain learns/functions using quantum mechanics or ‘emulate the mind's quantum momentary action and retention of knowledge’. Claim 50 is based on a theory.

Per the MPEP, section 608.01(I) the claim(s) is/are treated on its merits and a requirement made to amend the drawing and description to show the subject matter.

35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 22, 26, 27, 50 are rejected under 35 U.S.C. 101 for nonstatutory subject matter. The computer system must set forth a practical application of

Art Unit: 2129

that § 101 judicial exception to produce a real-world result. Benson, 409 U.S. at 71-72, 175 USPQ at 676-77. The invention is ineligible because it has not been limited to a substantial practical application. The enablement of hardware and software to operate the mind's action is vague. The phrase 'operate the mind's action' is ambiguous and undefined. The existence and function of a KP and it's flexibly programmed digital byte; the developer and KP to create and manipulate the knowledge network's intelligence; commands that are compiled and interpreted; the transformation of programmable bytes into epistemic moments have no practical real world function or results. The result has to be a practical application. Please see the interim guidelines for examination of patent applications for patent subject matter eligibility published November 22, 2005 in the official gazette.

Claims 22,26,27,50 are rejected under 35 U.S.C. 101 for nonstatutory subject matter for lack of concreteness. Phrases as 'mind's innate action', 'network's intelligence', 'minds quantum momentary action', 'prominent thoughts' all lack concreteness.

In determining whether the claim is for a "practical application," the focus is not on whether the steps taken to achieve a particular result are useful, tangible and concrete, but rather that the final result achieved by the claimed invention is "useful, tangible and concrete." If the claim is directed to a practical application of the § 101 judicial exception producing a result tied to the physical world that does not preempt the judicial exception, then the claim meets the statutory requirement of 35 U.S.C. § 101.

Art Unit: 2129

The phrase 'in cooperation with a human user', is not clear in its purpose or scope. There has to be an interface between the real world and main system for a practical application to be achieved. The phrase "forwarding the solutions through the service module to the main system" does not call for outputting data to a user nor does it call for actually using the solutions.

Phrases as 'Mind's innate action', 'minds quantum momentary action' and 'prominent thoughts' of one persons mind are different from another persons mind, therefore lack concreteness. The phrase 'network's intelligence' is based on the assumption that 'intelligence' of a network can be measured. It can not be measured therefore lacks concreteness.

The invention must be for a practical application and either:

- 1) specify transforming (physical thing) or
- 2) have the FINAL RESULT (not the steps) achieve or produce a
useful (specific, substantial, AND credible),
concrete (substantially repeatable/ non-unpredictable),
AND tangible (real world/ non-abstract) result.

A claim that is so broad that it reads on both statutory and non-statutory subject matter, must be amended, and if the specification discloses a practical application but the claim is broader than the disclosure such that it does not require the practical application, then the claim must be amended.

Claims that explain the internal structure of a system but produce no practical result are not statutory.

Art Unit: 2129

Claims that use standards which are not consistence and reliable are not statutory.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Regarding claim 22, the phrase "operate according to the mind's innate action" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. 'Mind's innate action' has no meaning. Where is the 'Mind' located and how much does it weight or is there a unit that corresponds to it for measuring purposes? The word 'mind' is indefinite.

Regarding claim 26, the phrase "knowledge network's intelligence" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. How does the applicant claims of manipulating intelligence when it can not be measured. This phrase is indefinite.

Regarding claim 27, the phrase "universal grammar's depiction" renders the claim indefinite because it is unclear whether the limitation(s) following the

Art Unit: 2129

phrase are part of the claimed invention. Since the 'universal grammar's depiction' is defined by the 'mind's innate action', this too is indefinite.

Regarding claim 50, the phrases "epistemological knowledge network", "transforms knowledge", "epistemic moments", "semantic webbing", 'mind's quantum momentary action' and "network node and grammatical form structure" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. "Epistemological knowledge network", means "The study of knowledge, knowledge network". So is the claim pertaining to a review of the study of knowledge? This teaches away from the specification and raises the claim to a status of indefiniteness. The phrase, 'transforms knowledge' is indefinite. What does the data get changed into? 'Knowledge processes' is vague at best. There exists a number of algorithms that can be viewed as a 'knowledge process' but none are mentioned here. The phrase, 'Knowledge process' is indefinite. The phrase 'epistemic moments' is indefinite. This phrase means there is a duration or length of time related to knowledge and this unit can be "embedded". 'Semantic webbing' has no meaning, thus indefinite. 'Mind's quantum momentary action' is assumed to be present in the 'mind'. This assumption makes the phrase indefinite. 'Prominent' is relative, thus indefinite. 'Arbitrary' is random, thus indefinite. 'Network webbing' is uncertain, thus indefinite. 'Network nodes' are well known in the art, but in association with 'grammatical form structures' makes the phrase

Art Unit: 2129

indefinite due to the fact the two respective domains do not overlap. Therefore the phrase 'network node and grammatical form structure' is indefinite.

Examiner's Note—The applicant must present an invention that is useful, concrete and tangible with a practical application. It must be defined with clear and concise terms in a logical fashion. New terms and/or phrases, which the inventor needs and/or uses must be fully explained in the specification.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 22, 26, 27, 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mehrotra in view of Staib. ('Elements of Artificial Neural Networks', referred to as **Mehrotra**; U. S. Patent 5406581, referred to as **Staib**)

Art Unit: 2129

Claim 22.

Mehrotra teaches a system and method for enabling digital memory, microprocessors, and software to operate according to the mind's innate action (**Mehrotra**, 7-21; Mehrotra illustrates the basic design of a neural network and how it parallels the human neuron.)

Mehrotra does not teach by encoding any application language's linguistic properties into the KP's flexibly programmed digital byte, whereby eliminating the need for compilers and software languages, and processing the elements of language directly in the registers of a microprocessor's central processing unit (CPU).

Staib teaches by encoding any application language's linguistic properties into the KP's flexibly programmed digital byte (**Staib**, C3:8-26; 'KP's flexibly programming digital byte' of applicant is equivalent to 'weights' of Staib.), whereby eliminating the need for compilers and software languages, and processing the elements of language directly in the registers of a microprocessor's central processing unit (CPU). (**Staib**, C2:61 through C3:7; By having a hard wired neural networks, this eliminates compilers, software languages, and inputs go directly into the CPU registers.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of Mehrotra by using a hardwired neural network that can input data directly into the CPU to handle elements of language as taught by Staib to encoding any application language's linguistic properties into the KP's flexibly programmed digital byte, whereby eliminating the need for

Art Unit: 2129

compilers and software languages, and processing the elements of language directly in the registers of a microprocessor's central processing unit (CPU).

For the purpose of bypassing software and time constraints relating to compiling and directly inputting data into the CPU for an increase in speed.

Claim 26.

Mehrotra does not teach a KDE's "Universal Programming Language" (UPL) and its robust command set, which enable the developer and the KP to create and manipulate the knowledge network's intelligence.

Staib teaches a KDE's "Universal Programming Language" (UPL) and its robust command set, which enable the developer and the KP to create and manipulate the knowledge network's intelligence. (**Staib**, C23:29-37; 'KDE' and 'universal programming language' of applicant is equivalent to 'training mode' and 'states' of Staib.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of Mehrotra by using a 'language' that is universal as taught by Staib to have a KDE's "Universal Programming Language" (UPL) and its robust command set, which enable the developer and the KP to create and manipulate the knowledge network's intelligence.

For the purpose of training the neural network so it can perform its purpose or function.

Claim 27.

Mehrotra does not teach UPL commands that are described in terms of microprocessor and software instruction syntax and operation so that the developer can apply the commands while building the knowledge network's intellectual faculties, or "scripts"; thereby offering a manner in which the UPL commands operate on application and platform languages directly corresponds to a CPU's operation on machine bytes in the "Host processor's" registers, but according to the universal grammar's depiction of language, such commands being provided such that they can be compiled, interpreted, or translated by the KDE into Host processor CPU architecture instructions when the knowledge project is installed on any enabling computer platform.

Staib teaches UPL commands that are described in terms of microprocessor and software instruction syntax and operation so that the developer can apply the commands while building the knowledge network's intellectual faculties, or "scripts" (**Staib**, C23:29-37; Since the UPL is a training set it can be described in terms of microprocessor and software instruction syntax. 'building the knowledge network's intellectual faculties, or "scripts" ' of applicant is equivalent to 'training of the RNN' of Staib.); thereby offering a manner in which the UPL commands operate on application and platform languages directly corresponds to a CPU's operation on machine bytes in the "Host processor's" registers, but according to the universal grammar's depiction of language, such commands being provided such that they can be compiled, interpreted, or translated by the KDE into Host processor CPU architecture instructions when the knowledge project is installed on any enabling computer

Art Unit: 2129

platform. (**Staib**, C23:29-37; For a training set to be useful it must be able to be compiled and interpreted for the CPU to use it.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of Mehrotra by having a software version of the invention so not to be hardware dependent as taught by Staib to have UPL commands that are described in terms of microprocessor and software instruction syntax and operation so that the developer can apply the commands while building the knowledge network's intellectual faculties, or "scripts"; thereby offering a manner in which the UPL commands operate on application and platform languages directly corresponds to a CPU's operation on machine bytes in the "Host processor's" registers, but according to the universal grammar's depiction of language, such commands being provided such that they can be compiled, interpreted, or translated by the KDE into Host processor CPU architecture instructions when the knowledge project is installed on any enabling computer platform.

For the purpose of being flexible and useful over a range of systems and not being restricted to hardware requirements.

Claim 50.

Mehrotra teaches an apparatus for realizing a synthetic knowledge processor, using analog and digital technology. (**Mehrotra**, 7-21; 'Synthetic knowledge processor' of applicant is equivalent to 'neural network' of Mehrotra.

Art Unit: 2129

If Mehrotra were a pulsed neural network is would fulfill the analog and digital technology requirements.),

Mehrotra does not teach wherein linguistically programmable digital bytes are created and altered in a microprocessor's and computer program's structure and operation.

Staib teaches wherein linguistically programmable digital bytes are created and altered in a microprocessor's and computer program's structure and operation. (**Staib**, C3:8-26; 'programming digital byte' of applicant is equivalent to 'weights' of Staib.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of Mehrotra by having adjustable weights as taught by Staib to have wherein linguistically programmable digital bytes are created and altered in a microprocessor's and computer program's structure and operation.

For the purpose of having a system that can learn and adjust for better results.

Mehrotra teaches according to the operation of an epistemological knowledge network, which retains and transforms knowledge and knowledge processes by configuring the programmable bytes into epistemic moments (**Mehrotra**, 7-21; 'Epistemological knowledge network' of applicant is equivalent to 'neural network' of Mehrotra.), wherein epistemic moments are embedded in the semantic webbing of the network in semantic clusters and prominent thoughts that emulate the mind's quantum momentary action and retention of knowledge (**Mehrotra**, 7-21; 'Webbing', 'clusters' and 'retention of knowledge' of

Art Unit: 2129

applicant is equivalent to 'connections between the nodes', 'layers of the nodes' and the 'neural network' of Mehrotra.), and wherein the prominent thoughts are embedded in semantic and syntactical network webbing formulated from network node and grammatical form structures which enable the apparatus to conceive, translate, and communicate higher-level expressions of arbitrary language while using the prominent thoughts as instances of a language's meaning. (**Mehrotra**, 7-21; 'Communication' of applicant is equivalent to 'output node(s)' of Mehrotra.)

Conclusion

5. The prior art of record and not relied upon is considered pertinent to the applicant's disclosure.

- U. S. Patent 5592589: Poon
- U. S. Patent 5504675: Cragun
- U. S. Patent 5164912: Osborne
- U. S. Patent Publication 20040059436: Anderson
- U. S. Patent Publication 20040034795: Anderson
- U. S. Patent Publication 20030140020: Chen
- U. S. Patent Publication 20030121058: Dimitrova
- U. S. Patent Publication 20020107824: Ahmed
- U. S. Patent 6499030: Igata
- U. S. Patent 6064971: Hartnett

Art Unit: 2129

-U. S. Patent 5809212: Shasha

-U. S. Patent 5706406: Pollock

-‘Pulsed Neural Networks’: Maass, Bishop

6. Claims 22, 26, 27, 50 are rejected.

Correspondence Information

7. Any inquiry concerning this information or related to the subject disclosure should be directed to the Examiner Peter Coughlan, whose telephone number is (571) 272-5990. The Examiner can be reached on Monday through Friday from 7:15 a.m. to 3:45 p.m.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner’s supervisor David Vincent can be reached at (571) 272-3687. Any response to this office action should be mailed to:

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Peter Coughlan

6/13/2006

